

IN THE CLAIMS

1. A method for extracting one or more of starch, oil, and protein from grain, comprising:
Providing kernels or seeds comprising a germ and pericarp comprising protein, oil, and starch;
Steeping the kernels or seeds in a steeping reactor for a time effective to soften the kernels and seeds;
Milling the steeped corn kernels to separate the germ from the starch/pericarp forming a germ stream and a starch/pericarp stream;
Subjecting the germ to rapid pressurization/depressurization in order to extract oil and protein from the germ; and
Separating the starch from the pericarp.
2. A system for extracting one or more of starch, oil, and protein from grain, comprising:
a steeping reactor effective for loosening a germ component from grain;
A mill effective for separating the germ component from the grain without fracturing the germ; and
A steam explosion device for subjecting the germ to pressurization/depressurization to extract oil and protein from the germ.
3. The system of claim 2, further comprising a cyclone reactor for extracting the germ.
4. A method for extracting protein, fiber, oil and starch from a mixture of grains, comprising:
Providing a first grain comprising a germ portion;
Steeping the first grain in a steeping reactor to make first grain steeped particles;

Providing a second grain comprising starch;
Milling the first steeped grain particles to separate the germ and to form starch-containing particles;
Milling the second grain without steeping;
Extracting the germ from the first grain steeped particles and the second grain steeped particles in a cyclone reactor; and
Blending the starch-containing particles from the first grain and the second grain.

5. The method of claim 13, further comprising separating fiber from the grain particles in the mixture.
6. The method of claim 13, further comprising separating protein from the grain particles in the mixture.
7. The method of claim 4, further comprising separating starch from the grain particles in the mixture.